

7

9/26/05 priority ~~8/24/05~~ 164867

SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800  
Rev. 3/15/2004 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 272-2911.

Date 9/16/05 Serial # 10/664,258 Priority Application Date 1/11/02  
Your Name M. Lewis Examiner # \_\_\_\_\_  
AU 2822 Phone 272-2838 Room 5A30  
In what format would you like your results? PAPER is the default. ☒ PAPER ☐ DISK ☐ EMAIL

If submitting more than one search, please prioritize in order of need. *need before 9/21*

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case? 9-26-05

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: \_\_\_\_\_

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. \_\_\_\_\_

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature ☐ Other \_\_\_\_\_  
Secondary Refs ☒ Foreign Patents ☐ \_\_\_\_\_  
Teaching Refs ☐ \_\_\_\_\_

What is the topic, such as the novelty, motivation, utility, or other specific facets defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claims 1-6

Problem: see pages 1-3  
solution: " 11 3&4

Mems Semicond. Device

Claims 8/05

Staff Use Only

Searcher Michael O'Keefe

Searcher Phone: 571-272-2663

Searcher Location: STIC-EIC2800, JEF-4B68

Date Searcher Picked Up: 9/26/05

Date Completed: 9/29/05

Searcher Prep/Rev Time: 647

Online Time: 612

Type of Search

Signature (#) \_\_\_\_\_

Bibliographic ☒

Patent Family ☒

Fulltext ☒

Patent Family \_\_\_\_\_

Other \_\_\_\_\_

Vendors

STN ☒

Dialog ☒

Quest/Orbit ☒

Lexis-Nexis ☒

WWW/Internet ☒

Other \_\_\_\_\_

30sep05 08:16:12 User259284 Session D3346.2

## SYSTEM:OS - DIALOG OneSearch

File 350:Derwent WPIX 1963-2005/UD,UM &amp;UP=200561

File 347:JAPIO Nov 1976-2005/Apr(Updated 050801)

File 344:Chinese Patents Abs Aug 1985-2005/May

Set	Items	Description
S1	390	MEMS/TI AND MEMS/AB
S2	87	S1 AND (ELECTRODE? OR MICROELECTRODE?)
S3	5	S2 AND (ULSI OR VLSI OR INTEGRATED OR MONOLITH? OR SYSTEM(- 2W)CHIP OR SOC OR SOI OR SIMOX)
S4	193700	S58:S59
S5	1	S2 AND (CONTROL? OR MICROCONTROL?) (7N) (DETECT? OR SENS??? - OR MICRODETECT? OR MICROSENS?)
S6	6	S3 OR S5
S7	36508	S4 AND (ELECTRODE? ? OR MICROELECTRODE?)
S8	39229	S4 AND (CONTROL? OR MICROCONTROL?)
S9	38452	S4 AND (DETECT? OR SENS??? OR MICRODETECT? OR MICROSENS?)
S10	12942	8AND9
S11	4839	S10 AND (TRANSLAT? OR REVOLV? OR ADJUST????? OR MOVE????? - OR MOVAB? OR MOVING? OR ROTAT???????)
S12	2087	S11 AND DRIV?????
S13	71	7AND12
S14	8	S13 AND (MONOLITH? OR INTEGRATED OR VLSI OR ULSI OR SOI OR SOC OR MICROSYSTEM?)
S15	8	S14 NOT S6
S16	19341	S1:S13 AND (MIRROR? OR MICROMIRROR? OR MICROREFLECT? OR (M- EMS OR MICRO OR MICROMACH? OR MICROMECH? OR MICROELECTR?) (2N) - (MIRROR?? OR REFLECT??))
S17	11106	S16 AND (TRANSLAT? OR REVOLV? OR ADJUST????? OR MOVE????? - OR MOVAB? OR MOVING? OR ROTAT???????)
S18	387	S17 AND (MONOLITH? OR INTEGRATED OR VLSI OR ULSI OR SOI OR SOC OR MICROSYSTEM? OR CHIP? ? OR MICROCHIP? ?)
S19	11	S18 AND (CONTROL????? OR MICROCONTROL?????) (6N)ELECTRODE? ?
S20	0	S18 AND (CONTROL????? OR MICROCONTROL?????) (6N)MICROELECT- RODE? ?
S21	3	S18 AND (DETECT? OR SENS??? OR MICRODETECT? OR MICROSENS?) - (6N) (MICROELECTRODE? ? OR ELECTRODE? ?)
S22	94	S18 AND DRIV?????
S23	9	S18 AND (CPU OR PROCESSOR?)
S24	17	S18 AND (MEMOR????? OR DATA(2N)STOR?????)
S25	2	13AND22
S26	14	S15 OR S6
S27	33	S19:S21 OR S23:S25
S28	31	S27 NOT S26
S29	15	S28 AND (CIRCUIT????? OR MICROCIRCUIT?????)
S30	2	S28 AND FLOAT???????
S31	8	S28 AND ELECTRODES
S32	0	S28 AND MICROELECTRODES
S33	0	S28 AND CONDUCTORS
S34	0	S28 AND MICROCONDUCTORS
S35	4	S29 AND S30:S31
S36	2	S28:S31 AND (ULTRA????????? OR ULSI)
S37	2	S36 NOT S35

(Continued on next sheet)

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SYSTEM:OS - DIALOG OneSearch

File 350:Derwent WPIX 1963-2005/UD,UM &amp;UP=200561

File 347:JAPIO Nov 1976-2005/Apr(Updated 050801)

File 344:Chinese Patents Abs Aug 1985-2005/May

(Continued)

S38 12936 S1:S29 AND (CONTROL????? OR MICROCONTROL?????) AND (DETEC-  
T? OR SENS??? OR MICRODETECT? OR MICROSENS?)

S39 5318 S38 AND (TRANSLAT? OR REVOLV? OR ADJUST????? OR MOVE????? -  
OR MOVAB? OR MOVING? OR ROTAT??????? OR ROTOR?? OR OSCILLAT??-  
??)

S40 239 S38 AND (ELECTROMECH? OR ELECTRO()MECHANIC?????)

S41 47 S38 AND PHYSICALLY

S42 12936 S38:S41

S43 4468 S42 AND DRIV?????????

S44 6751 S42 AND (SIGNAL????? OR NOIS??? OR SNR OR S(1W)N OR TRANSM-  
I?????)

S45 1107 S42 AND CONTROL????/TI AND SENS????/TI

S46 2465 S42 AND CONTROL????(9N)SENS????

S47 2455 43AND44

S48 1040 S43 AND S45:S46

S49 1514 S44 AND S45:S46

S50 616 47AND48

S51 614 S50 NOT (S37 OR S35 OR S15 OR S6)

S52 198 DRIV????(7N)(SENS??? OR MICROSENS????) AND S51

S53 363 DRIV????(7N)(CONTROL????? OR MICROCONTROL????) AND S51

S54 145 52AND53

S55 0 S52:S53 AND (SINGLE OR ONE OR 1)(1W)(CHIP OR MICROCHIP OR -  
SUBSTRATE)

S56 0 S52:S53 AND (MONOLITH? OR SYSTEM(2W)(CHIP OR MICROCHIP) OR  
SOC OR SOI OR SOP OR SIMOX OR ULSI OR (SCALE OR HIGHLY)(W)INT-  
EGRAT????)

S57 0 S52:S53 AND VLSI

S58 1 S52:S53 AND CHIP

S59 0 S52:S53 AND MICROCHIP

S60 8 S52:S53 AND SUBSTRATE

S61 7 S52:S53 AND IC

S62 1 S52:S53 AND INTEGRATED()CIRCUIT

S63 17 S58:S62

29sep05 15:03:15 User259284 Session D3344.2

Dialog File 2: INSPEC 1969-2005/Sep W3 c)2005 Institution of Electrical Engineers

Set	Items	Description
S1	41064	R1:R16 OR R21 OR R23 OR R30:R31
S2	41218	S1 OR MEMS OR MICROELECTROMECH?
S3	47484	S2 OR MICROMECH? OR MICROELECTRO()MECH???????? OR MICRO()ELECTRO()MECH??????
S4	48459	S3 OR MEM
S5	409	S4 AND (SENS??? OR DETECT????) (2N) (CIRCUIT??? OR MICROCIRCUIT???)
S6	5181	S4 AND (MOVE? OR MOVAB? OR MOVING OR MOTION???)
S7	80293	(DRIV???? OR OUTPUT????? OR CONTROL?????) (4N) (SIGNAL? OR CIRCUIT??? OR MICROCIRCUIT??? OR SIGNAL???)
S8	18401	ELECTROMECHANIC? OR ELECTRO()MECH??????
S9	172296	SIGNALS/AB (January 1999)
S10	186	S4 AND (SENS??? OR DETECT????) (2N) (ELECTRODE? ? OR MICROELECTRODE? ?)
S11	10178	S4 AND (MICROCONTROL? OR CONTROL?????? OR COMMAND?????)
S12	73	S4 AND (MICROCONTROL? OR CONTROL??????) (3N) (ELECTRODE? OR MICROELECTRODE?)
S13	1550	S4 AND (REVOLV? OR ROTAT?)
S14	127549	CPU OR PROCESSOR?
S15	188427	MEMOR??? OR DATA(2N)STOR????? OR RAM OR DRAM OR ROM OR EPROM OR EEPROM OR PROM OR SRAM
S16	43	5AND6
S17	190	7AND6
S18	384	8AND6
S19	133	9AND6
S20	19	10AND6
S21	1951	11AND6
S22	23	12AND6
S23	469	13AND6
S24	47	14AND6
S25	196	15AND6
S26	7	S13 AND S5
S27	591	S13 AND S7:S12
S28	6	S13 AND S14
S29	51	S13 AND S15
S30	3102	S16:S29
S31	546	S30 AND (PENTIUM OR RISC OR ICS OR INTEGRATED()CIRCUIT??? OR MICROCIRCUIT? OR MONOLITH? OR IC OR MICROCHIP? OR SOI OR SOC OR CHIP OR CHIPS OR MCM? ? OR MULTICHIP?)
S32	192	S31 AND DRIV??????
S33	353	S31 AND CONTROL?????
S34	117	32AND33
S35	3	14AND34
S36	3	15AND34
S37	6	S35:S36
S38	16417	R1:R2 OR MEMS
S39	3311	S10 OR S12 OR S16:S34
S40	1172	38AND39
S41	41	S40 AND MEMORY
S42	15	S40 AND DRIV???? (3N) (CIRCUIT???? OR MICROCIRCUIT????)
S43	1	41AND42
S44	2653	(SENS??? OR MICROSENS??? OR MICRODETECT????) (1N) (ELECTRODE?? OR MICROELECTRODE?? OR CIRCUIT???? OR MICROCIRCUIT????)
S45	35	40AND44
S46	34	S45 NOT (S37 OR S43)
S47	1	41AND46
S48	1	42AND46
S49	2	S47:S48
S50	32	S46 NOT S49
S51	7	S50 AND S6
S52	1	S50 AND S13
S53	8	S51:S52

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[File 2] **INSPEC** 1969-2005/Sep W3  
[File 6] **NTIS** 1964-2005/Sep W3  
[File 8] **Ei Compendex(R)** 1970-2005/Sep W3  
[File 34] **SciSearch(R) Cited Ref Sci** 1990-2005/Sep W3  
[File 434] **SciSearch(R) Cited Ref Sci** 1974-1989/Dec  
[File 35] **Dissertation Abs Online** 1861-2005/Aug  
[File 65] **Inside Conferences** 1993-2005/Sep W4  
[File 94] **JICST-EPlus** 1985-2005/Jul W5  
[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2005/Jul  
[File 144] **Pascal** 1973-2005/Sep W3  
[File 344] **Chinese Patents Abs** Aug 1985-2005/May  
[File 347] **JAPIO** Nov 1976-2005/Apr(Updated 050801)  
[File 350] **Derwent WPIX** 1963-2005/UD,UM &UP=200561  
[File 371] **French Patents** 1961-2002/BOPI 200209  
[File 23] **CSA Technology Research Database** 1963-2005/Sep  
[File 103] **Energy SciTec** 1974-2005/Aug B2  
[File 95] **TEME-Technology & Management** 1989-2005/Aug W3  
[File 68] **Solid State & Superconductivity Abstracts** 1966-2005/Sep  
[File 60] **ANTE: Abstracts in New Tech & Engineer** 1966-2005/Sep  
[File 293] **Engineered Materials Abstracts** 1966-2005/Sep

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Set	Items	Postings	Description
S1	1266645	5977211	S (SEMICONDUCTOR? ? OR SEMI()CONDUCTOR? ? OR PCB? ? OR TAB? ? OR PRINT????(CIRCUIT()BOARD? ? OR CIRCUIT???()BOARD? ? OR LOAD()BOARD? ? OR LOADBOARD? ? OR LSI? ? OR ASIC? ? OR ELECTRON???()DEVICE? ? OR PRINT???()CIRCUIT??? OR IC? ? OR INTEGRAT???()CIRCUIT??? OR CHIP? ? OR WAFER???)(3N)(DEVICE? ? OR APPARATUS??? OR INSTRUMENT? ? OR APPLIANCE? ? OR HARDWARE? ? OR MEANS OR MECHANISM? ?)
S2	424943	994844	S MEM? ? OR OPTICAL(3N)SWITCH??? OR MICROMACHINE? ? OR MICRO()MACHINE? ? OR MICROELECTROMECHANICAL()SYSTEM? ? OR MICRO()ELECTROMECHANICAL()SYSTEM? ? OR MICROELECTRO()MECHANICAL()SYSTEM? ? OR MICRO()MECHANICAL? ? OR MICROMECHANICAL? ?
S3	1295190	6906173	S (SEMICONDUCTOR? ? OR SEMI()CONDUCTOR? ? OR PCB? ? OR TAB? ? OR PRINT????(CIRCUIT()BOARD? ? OR CIRCUIT???()BOARD? ? OR LOAD()BOARD? ? OR LOADBOARD? ? OR LSI? ? OR ASIC? ? OR ELECTRON???()DEVICE? ? OR PRINT???()CIRCUIT??? OR IC? ? OR INTEGRAT???()CIRCUIT??? OR CHIP? ? OR WAFER???)(3N)(SUBSTRATE? ? OR MATERIAL? ? OR SUBSTANCE? ? OR SURFACE? ? OR STRATUM? ? OR OBJECT? ? OR SUPPORT? ? OR INSULATOR? ? OR CERAMIC? ? OR PLASTIC? ? OR GLASS?? OR WAFER? ? OR FERROUS OR FERRITE? ?)
S4	6294110	21014492	S (PLURALIT???? OR MANY OR MULTIPLE? ? OR DIFFERENT?? OR NUMEROUS OR NUMBER? ? OR VARIOUS OR VARY???? OR SEVERAL?? OR DIVERSE OR TWO? ? OR THREE? ? OR FOUR? ? OR MORE OR 2? ? OR 3? ? OR 4? ?)(3N)(UNIT? ? OR ASSEMBL???? OR ENTIT???? OR GROUP? ? OR MODULE? ? OR PIECE? ? OR COMPONENT? ? OR ELEMENT? ? OR ITEM? ? OR PART? ?)
S5	513450	1663947	S (MOVING OR MOVABLE OR SHIFT???? OR ADVANC???? OR MOBIL???? OR MOTIVE OR MOTILE OR MOTION???? OR ACTIVE?? OR AGITATE????)(3N)(PIECE? ? OR SEGMENT? ? OR MODULE? ? OR UNIT? ? OR PART? ? OR ELEMENT? ? OR COMPONENT? ? OR ITEM? ?)
S6	214418	793346	S (CONTROL???? OR MASTER??? OR GUID???? OR OPERAT???? OR GOVERN??)(3N)(ELECTRODE? ? OR CONDUCTOR? ? OR ROD? ? OR ANODE? ? OR CATHODE? ? OR PROBE? ?)
S7	287857	1094499	S (DRIV???? OR ACTUAT???? OR INDUC???? OR ACTIVAT???? OR ENERGIZ???? OR EXCIT???? OR STIMULAT????)(3N)(CIRCUIT??? OR CHIP? ? OR IC? ? OR INTEGRAT????(2N)CIRCUIT????)
S8	1405680	5968875	S (SENS???? OR DETECT???? OR MONITOR???? OR MEASUR???? OR TEST???? OR GAUG???? OR PROB???? OR ACTUAT???? OR CONTROL????)(3N)(ELECTRODE? ? OR CONDUCTOR? ? OR ROD? ? OR ANODE? ? OR CATHODE? ? OR PROBE? ?)
S9	1132326	4858339	S (SENS???? OR DETECT???? OR MONITOR???? OR MEASUR???? OR TEST???? OR GAUG???? OR PROB???? OR ACTUAT???? OR CONTROL????)(3N)(CIRCUIT??? OR CHIP? ? OR IC? ? OR INTEGRAT????(2N)CIRCUIT????)
S10	6758042	28695650	S MEMOR???? OR STOR???? OR BUFFER???? OR MEMOR???? OR CACHE? ? OR DISK???? OR DISC? ? OR RAM? ? OR SDRAM? ? OR DRAM? ? OR STOR????(3N)DEVICE? ? OR CD()ROM? ? OR PROM? ? OR EPROM? ? OR EEPROM? ?
S11	21416745	54382667	S PROCESS??? OR CPU? ? OR CENTRAL()PROCESS????()UNIT OR ALU? ? OR ARITHMETIC(2W)LOGIC()UNIT? ? OR CU? ? OR CONTROL()UNIT? ? OR MICROPROCESS??? OR MICROCOMPUTER? ? OR COMPUTER? ?
S12	6837	20926	S (DOWNSIZ???? OR DOWN()SIZING OR DECREAS???? OR MINIMIZ???? OR MINIATUR??????? OR SCAL????(3N)DOWN OR REDUC???? OR DIMINISH??? OR PARE???()DOWN OR SHRINK??? OR ECONOM?????) (3N)(MEM? ? OR OPTICAL(3N)SWITCH??? OR MICROMACHINE? ? OR MICRO()MACHINE? ? OR MICROELECTROMECHANICAL()SYSTEM? ? OR MICRO()ELECTROMECHANICAL()SYSTEM? ? OR MICROELECTRO()MECHANICAL()SYSTEM? ? OR MICRO()MECHANICAL? ? OR MICROMECHANICAL? ? OR SIGNAL()LINE? ?)
S13	498433	1528593	S MIRROR????
S14	9563	22117	S (EFFICIENT??? OR EFFECT????? OR ECONOM????)(3N)MIRROR???
S15	97833	160802	S IC=(B81B-001/00 OR B81B-003/00 OR B81B-005/00 OR B81B-007/02 OR B81B-007/04 OR B81C-001/00 OR B81C-005/00 OR G02B-026/08 OR H01L-021/00 OR H01L-021/302 OR H01L-027/00 OR H01L-027/148 OR G02B-006/35 OR G02B-006/12 OR G02B-006/28)
S16	69929	80124	S MC=(U12-B03F1B OR V06-M06G OR V06-U04E OR V06-U14 OR V07-G15 OR U13-D04 OR V07-G15 OR V07-K05 OR W01-A06B5A OR W01-A06B5B OR W01-A06C1 OR W02-C04A9 OR W02-C04B1)
S17	105560	170966	S IC=(B81B-001/00 OR B81B-003/00 OR B81B-005/00 OR B81B-007/02 OR B81B-007/04 OR B81C-001/00 OR B81C-005/00 OR G02B-026/08 OR H01L-021/00 OR H01L-021/302 OR H01L-027/00 OR H01L-027/148 OR G02B-006/35 OR G02B-006/12 OR G02B-006/28)
S18	33	884	S S1 AND S2 AND S3 AND S4 AND S5
S19	0	0	S S18 AND S12
S20	18	391	S S18 AND PY<=2002
S21	241	3049	S S1 AND S2 AND S12
S22	0	0	S S21(3N)S5
S23	7	101	S S21 AND S5
S24	684	3080	S S1(3N)S2
S25	5	34	S S24(3N)S12
S26	8	90	S S12 AND S13 AND S14
S27	0	0	S S24(3N)S14
S28	0	0	S S24 AND S14
S29	48	414	S S24 AND S15
S30	21	358	S S29 AND PY<=2002
S31	37	295	S S24 AND S16
S32	23	324	S S31 AND PY<=2002
S33	59	2084	S S6 AND S7 AND S8 AND S9 AND S10 AND S11
S34	6	250	S S33 AND S1
S35	4	190	S S34 AND PY<=2002
S36	7	101	S S23 NOT S20
S37	5	34	S S25 NOT (S20 OR S23)
S38	8	90	S S26 NOT (S20 OR S23 OR S25)
S39	21	358	S S30 NOT (S20 OR S23 OR S25 OR S26)
S40	15	183	S S32 NOT (S20 OR S23 OR S25 OR S26 OR S30)
S41	5	191	S S34 NOT (S20 OR S23 OR S25 OR S26 OR S30 OR S32)
S42	0	0	S S35 NOT (S20 OR S23 OR S25 OR S26 OR S30 OR S32 OR S34)

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[File 342] Derwent Patents Citation Indx 1978-05/200559

? s pn=US 6861720  
S1 1 S PN=US 6861720

? map ct/pn=

SearchSave "SC063" stored  
7 Select Statements, 83 Search Term(s)  
SearchSave SC063

1 SearchSave(s), 83 Search Term(s)

[File 344] Chinese Patents Abs Aug 1985-2005/May

[File 347] JAPIO Nov 1976-2005/Apr(Updated 050801)

[File 350] Derwent WPIX 1963-2005/UD,UM &UP=200561

? map pn/ct=  
Processing MAP

SearchSave "SC065" stored  
21 Select Statements, 269 Search Term(s)  
SearchSave SC065

1 SearchSave(s), 269 Search Term(s)

Set	Items	Postings	Description
S1	1268	2503	S1:S20 FROM 342
S2	5	15	S S1 AND MEM? ?
S3	1000	4827	S S1 AND PY<=2002
S4	6	16	S S1 AND MIRROR

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[File 348] EUROPEAN PATENTS 1978-2005/Sep W03

[File 349] PCT FULLTEXT 1979 2005/UB=20050922,UT=20050915

[File 324] German Patents Fulltext 1967-200538



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Set	Items	Postings	Description
S1	187692	3356947	S (SEMICONDUCTOR? ? OR SEMI()CONDUCTOR? ? OR PCB? ? OR TAB? ? OR PRINT????()CIRCUIT()BOARD? ? OR CIRCUIT???()BOARD? ? OR LOAD()BOARD? ? OR LOADBOARD? ? OR LSI? ? OR ASIC? ? OR ELECTRON???()DEVICE? ? OR PRINT???()CIRCUIT??? OR IC? ? OR INTEGRAT???()CIRCUIT??? OR CHIP? ? OR WAFER???)(3N)(DEVICE? ? OR APPARATUS??? OR INSTRUMENT? ? OR APPLIANCE? ? OR HARDWARE? ? OR MEANS OR MECHANISM? ?)
S2	341560	1658192	S MEM? ? OR OPTICAL(3N)SWITCH???? OR MICROMACHINE? ? OR MICRO()MACHINE? ? OR MICROELECTROMECHANICAL()SYSTEM? ? OR MICRO()ELECTROMECHANICAL()SYSTEM? ? OR MICROELECTRO()MECHANICAL()SYSTEM? ? OR MICRO()MECHANICAL? ? OR MICROMECHANICAL? ?
S3	205906	6496910	S (SEMICONDUCTOR? ? OR SEMI()CONDUCTOR? ? OR PCB? ? OR TAB? ? OR PRINT????()CIRCUIT()BOARD? ? OR CIRCUIT???()BOARD? ? OR LOAD()BOARD? ? OR LOADBOARD? ? OR LSI? ? OR ASIC? ? OR ELECTRON???()DEVICE? ? OR PRINT???()CIRCUIT??? OR IC? ? OR INTEGRAT???()CIRCUIT??? OR CHIP? ? OR WAFER???)(3N)(SUBSTRATE? ? OR MATERIAL? ? OR SUBSTANCE? ? OR SURFACE? ? OR STRATUM? ? OR OBJECT? ? OR SUPPORT? ? OR INSULATOR? ? OR CERAMIC? ? OR PLASTIC? ? OR GLASS? ? OR WAFER? ? OR FERROUS OR FERRITE? ?)
S4	2422334	42728338	S (PLURALIT???? OR MANY OR MULTIPLE? ? OR DIFFERENT?? OR NUMEROUS OR NUMBER? ? OR VARIOUS OR VARY???? OR SEVERAL?? OR DIVERSE OR TWO? ? OR THREE? ? OR FOUR? ? OR MORE OR 2? ? OR 3? ? OR 4? ?)(3N)(UNIT? ? OR ASSEMBL???? OR ENTIT???? OR GROUP? ? OR MODULE? ? OR PIECE? ? OR COMPONENT? ? OR ELEMENT? ? OR ITEM? ? OR PART? ?)
S5	436501	3320002	S (MOVING OR MOVABLE OR SHIFT???? OR ADVANC???? OR MOBIL???? OR MOTIVE OR MOTILE OR MOTION???? OR ACTIVE??? OR AGITATE????)(3N)(PIECE? ? OR SEGMENT? ? OR MODULE? ? OR UNIT? ? OR PART? ? OR ELEMENT? ? OR COMPONENT? ? OR ITEM? ?)
S6	121815	1087144	S (CONTROL???? OR MASTER??? OR GUID???? OR OPERAT???? OR GOVERN???)(3N)(ELECTRODE? ? OR CONDUCTOR? ? OR ROD? ? OR ANODE? ? OR CATHODE? ? OR PROBE? ?)
S7	131923	1589288	S (DRIV???? OR ACTUAT???? OR INDUC???? OR ACTIVAT???? OR ENERGIZ???? OR EXCIT???? OR STIMULAT????)(3N)(CIRCUIT???? OR CHIP? ? OR IC? ? OR INTEGRAT????(2N)CIRCUIT????)
S8	368756	8871077	S (SENS???? OR DETECT???? OR MONITOR???? OR MEASUR???? OR TEST???? OR GAUG???? OR PROB???? OR ACTUAT???? OR CONTROL????)(3N)(ELECTRODE? ? OR CONDUCTOR? ? OR ROD? ? OR ANODE? ? OR CATHODE? ? OR PROBE? ?)
S9	315973	5260447	S (SENS???? OR DETECT???? OR MONITOR???? OR MEASUR???? OR TEST???? OR GAUG???? OR PROB???? OR ACTUAT???? OR CONTROL????)(3N)(CIRCUIT???? OR CHIP? ? OR IC? ? OR INTEGRAT????(2N)CIRCUIT????)
S10	2059752	44414613	S MEMOR???? OR STOR???? OR BUFFER???? OR MEMOR???? OR CACHE? ? OR DISK???? OR DISC? ? OR RAM? ? OR SDRAM? ? OR DRAM? ? OR STOR????(3N)DEVICE? ? OR CD()ROM? ? OR PROM? ? OR EPROM? ? OR EEPROM? ?
S11	2665920	46462357	S PROCESS???? OR CPU? ? OR CENTRAL()PROCESS????()UNIT OR ALU? ? OR ARITHMETIC(2W)LOGIC()UNIT? ? OR CU? ? OR CONTROL()UNIT? ? OR MICROPROCESS???? OR MICROCOMPUTER? ? OR COMPUTER? ?
S12	3471	13986	S (DOWNSIZ???? OR DOWN()SIZING OR DECREAS???? OR MINIMIZ???? OR MINIATUR??????? OR SCAL????(3N)DOWN OR REDUC???? OR DIMINISH??? OR PARE???()DOWN OR SHRINK??? OR ECONOM?????) (3N)(MEM? ? OR OPTICAL(3N)SWITCH???? OR MICROMACHINE? ? OR MICRO()MACHINE? ? OR MICROELECTROMECHANICAL()SYSTEM? ? OR MICRO()ELECTROMECHANICAL()SYSTEM? ? OR MICROELECTRO()MECHANICAL()SYSTEM? ? OR MICRO()MECHANICAL? ? OR MICROMECHANICAL? ? OR SIGNAL()LINE? ?)
S13	212923	2011456	S MIRROR????
S14	5584	17578	S (EFFICIENT??? OR EFFECT???? OR ECONOM????)(3N)MIRROR???
S15	17885	19338	S IC=(B81B-001/00 OR B81B-003/00 OR B81B-005/00 OR B81B-007/02 OR B81B-007/04 OR B81C-001/00 OR B81C-005/00 OR G02B-026/08 OR H01L-021/00 OR H01L-021/302 OR H01L-027/00 OR H01L-027/148 OR G02B-006/35 OR G02B-006/12 OR G02B-006/28)
S16	0	0	S MC=(U12-B03F1B OR V06-M06G OR V06-U04E OR V06-U14 OR V07-G15 OR U13-D04 OR V07-G15 OR V07-K05 OR W01-A06B5A OR W01-A06B5B OR W01-A06C1 OR W02-C04A9 OR W02-C04B1)
S17	2683	561171	S S1 AND S2 AND S3 AND S4 AND S5
S18	152	182845	S S17 AND S6 AND S7 AND S8 AND S9 AND S10 AND S11
S19	6	19454	S S18 AND S12 AND S13
S20	0	0	S S18 AND S12 AND S14
S21	7	9808	S S18 AND S14
S22	279	63792	S S17 AND S15
S23	23	205	S S22(3N)S12
S24	0	0	S S22(3N)S14
S25	322	2051	S S1(3N)S2
S26	0	0	S S25(3N)S5
S27	6	42	S S25(3N)S12
S28	0	0	S S27(3N)S14
S29	0	0	S S27(3N)S13
S30	53	534	S S25 AND S15
S31	20	355	S S30 AND PY<=2002
S32	20	355	IDPAT (sorted in duplicate/non-duplicate order)
S33	20	355	IDPAT (primary/non-duplicate records only)
S34	7	9808	S S21 NOT S19
S35	22	160	S S23 NOT (S19 OR S21)
S36	17	327	S S33 NOT (S19 OR S21 OR S23)